

REMARKS

Claims 1-30 are currently pending in the present Application, with claim 31 standing withdrawn pursuant to an Election/Restriction Requirement. The pending rejections include:

Claims 1, 5, 8-10 and 12 under § 102(b) as anticipated by U.S. Patent No. 5,948,185 to Krajewski, *et al.* ("Krajewski").

Claims 2-3, 6-7, 13, 16-17, 19-21 and 23 under 35 U.S.C. § 103(a) as unpatentable over Krajewski.

Claims 4, 14-15, 18 and 22 under § 103(a) as unpatentable over Krajewski in view of U.S. Patent No. 4,000,007 to Develay, *et al.* ("Develay").

Claims 11, 24-29 and 30 under § 103(a) as unpatentable over Krajewski in view of U.S. Patent No. 5,587,042 to St. Denis ("St. Denis").

The Applicants have carefully considered the October 15, 2004 Office Action, and respectfully submit the foregoing amendments and following remarks in response thereto.

The Present Invention: As noted in the present specification, it is known in the art to form structural (*i.e.*, load bearing) components such as motor supports from built-up shell sections. These shell sections are joined with known methods such as spot welding or riveting which can withstand routine tensile and shear stresses imposed during normal operation by the loads the structural member was designed to carry. However, in an event such as a crash, use of spot welds or rivets can result in very high local stress concentrations at the fastening points, and the structural member can fail by tearing at the spot welds or rivets.

Specification ¶[0004].

This problem has been addressed by the Applicants by providing a linear connection between the shell sections, thereby spreading crash loads over a much larger area. The Applicants determined that by joining the structural shell sections by flanging – a joining technique has not been applied to such a demanding application as a load-bearing structural member of a vehicle – the resulting structural member provides the needed normal operation load-bearing capacity, while avoiding the prior art stress concentration problems during extraordinary loading, as in crashes.

For clarity, the Applicants have amended claim 1 to specifically recite that the “structural component for a motor vehicle” is a load bearing structural component formed from at least two shell sections attached to one another by flanging.

The Claims Are Patentable Over Krajewski: The Applicants respectfully traverse the pending rejections based on the Krajewski reference on the grounds that this reference fails to disclose or suggest the present invention’s application of flanging to create *load-bearing* motor vehicle structural members.

The Krajewski reference teaches “[a]n improved method of forming a severe bend or a hem in a sheet of wrought aluminum age-hardened and age-hardenable alloy.” Krajewski Abstract. This reference goes on to describe a method for joining a *body panel skin* (an “outer panel form[ing] the decorative and functional outline of the vehicle panel”) to an underlying support (an “inner panel serv[ing] a reinforcing function”). Krajewski at 1:19-21. Importantly, the

Krajewski specification and claims focus only on the preparation of the body panel skins for bending *to capture* their reinforcing inner panels.

Moreover, while Krajewski teaches the bending of softened aluminum flanges (to avoid unsightly cracking as the inner panel is captured), there is nothing in this reference which begins to suggest the application of flanging as possibly a satisfactory method to providing acceptable *load-bearing* structures.

Thus, Krajewski does not disclose claim 1's method for joining shell sections to form a "load bearing" structural part under § 102. Further, in the absence of any teaching or suggestion in the direction of the present invention, it would not have been obvious under § 103 to employ the Krajewski reference's method of bending aluminum body panel skin flanges to obtain the present invention's approach to producing structural members with superior flange integrity.

The remaining cited references fail to cure the deficiencies of Krajewski. The Develay reference, cited for teaching stamping, pressing, or deep-drawing of vehicle body panels, like Krajewski is drawn to formation of non-structural body panel components. The St. Denis reference, cited for use of a heat-generating device to heat a flange area, is similarly directed to formation of "vehicle panels such as doors, hoods, deck lids" St. Denis at 1:18-19. Thus, no combination of Krajewski, Develay and/or St. Denis teaches or suggests claim 1's method "for producing a load bearing structural component for a motor vehicle, including at least two shell sections that are attached to one another along flanges, comprising attaching the shell sections of the structural component to one

another by flanging.”

In view of the foregoing remarks, the Applicants respectfully submit that the present invention recited in claims 1-30 is patentable over Krajewski and over the combination of this reference with Develay and/or St. Denis.

Reconsideration and withdrawal of the pending § 102 and § 103 rejections is respectfully requested.

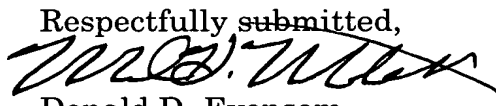
CONCLUSION

The Applicants respectfully submit that claims 1-30 are in condition for allowance. Early and favorable consideration, and issuance of a Notice of Allowance for these claims is respectfully requested.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #080437.52869US).

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